

Title (en)
Rotary phase separator system

Title (de)
System zur Phasentrennung mittels Rotation

Title (fr)
Séparateur de phases rotativ

Publication
EP 1854528 A1 20071114 (EN)

Application
EP 07250968 A 20070308

Priority
US 42985906 A 20060508

Abstract (en)
A rotary phase separator system generally includes a rotary drum separator (RDS) (16) and a motor assembly. The RDS includes a stepped drum (50) having an accumulator section (52) and an impeller section (54). The aspect ratio of the stepped drum minimizes power for both the accumulating and pumping functions. The accumulator section of the RDS has a relatively small diameter to minimize power losses within an axial length to define significant volume for accumulation. The pumping section of the RDS has a larger diameter to increase pumping head but has a shorter axial length to minimize power losses. The motor assembly drives the RDS at a low speed for separating and accumulating and a higher speed for pumping.

IPC 8 full level
B01D 45/14 (2006.01); **B04B 5/00** (2006.01)

CPC (source: EP US)
B01D 19/0052 (2013.01 - EP US); **B01D 45/14** (2013.01 - EP US)

Citation (applicant)
US 2003000184 A1 20030102 - DEAN W CLARK [US]

Citation (search report)
• [A] US 2003000184 A1 20030102 - DEAN W CLARK [US]
• [A] US 5693125 A 19971202 - DEAN W CLARK [US]
• [A] US 5244479 A 19930914 - DEAN II WALTER C [US], et al
• [A] GB 1531700 A 19781108 - KOBE INC

Cited by
EP3852897A4; AU2019344813B2

Designated contracting state (EPC)
DE FR GB

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1854528 A1 20071114; EP 1854528 B1 20100630; DE 602007007394 D1 20100812; JP 2007301549 A 20071122; JP 4700635 B2 20110615; US 2007256398 A1 20071108; US 7628836 B2 20091208

DOCDB simple family (application)
EP 07250968 A 20070308; DE 602007007394 T 20070308; JP 2007046347 A 20070227; US 42985906 A 20060508